

Sequence Listing

<110> Leonard Presta

<120> Polypeptide Variants with Altered Effector Function

<130> P1726R1

<141> 2000-01-14

<150> US 60/116,023

<151> 1999-01-15

<160> 11

<210> 1

<211> 218

<212> PRT

<213> Artificial Sequence

<220>

<221> Artificial Sequence

<222> 1-218

<223> Sequence is completely synthesized

<400> 1
Asp Ile Gln Leu Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val
1 5 10 15

Gly Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Lys Pro Val Asp
20 25 30

Gly Glu Gly Asp Ser Tyr Met Asn Trp Tyr Gln Gln Lys Pro Gly
35 40 45

Lys Ala Pro Lys Leu Leu Ile Tyr Ala Ala Ser Tyr Leu Glu Ser
50 55 60

Gly Val Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe
65 70 75

Thr Leu Thr Ile Ser Ser Leu Gln Pro Glu Asp Phe Ala Thr Tyr
80 85 90

Tyr Cys Gln Gln Ser His Glu Asp Pro Tyr Thr Phe Gly Gln Gly
95 100 105

Thr Lys Val Glu Ile Lys Arg Thr Val Ala Ala Pro Ser Val Phe
110 115 120

Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser
125 130 135

Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val
140 145 150

Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu
155 160 165

Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
 170 175 180
 Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val
 185 190 195
 Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr
 200 205 210
 Lys Ser Phe Asn Arg Gly Glu Cys
 215 218

<210> 2
 <211> 451
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> Artificial Sequence
 <222> 1-451
 <223> Sequence is completely synthesized

<400> 2
 Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly
 1 5 10 15
 Gly Ser Leu Arg Leu Ser Cys Ala Val Ser Gly Tyr Ser Ile Thr
 20 25 30
 Ser Gly Tyr Ser Trp Asn Trp Ile Arg Gln Ala Pro Gly Lys Gly
 35 40 45
 Leu Glu Trp Val Ala Ser Ile Lys Tyr Ser Gly Glu Thr Lys Tyr
 50 55 60
 Asn Pro Ser Val Lys Gly Arg Ile Thr Ile Ser Arg Asp Asp Ser
 65 70 75
 Lys Asn Thr Phe Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp
 80 85 90
 Thr Ala Val Tyr Tyr Cys Ala Arg Gly Ser His Tyr Phe Gly His
 95 100 105
 Trp His Phe Ala Val Trp Gly Gln Gly Thr Leu Val Thr Val Ser
 110 115 120
 Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser
 125 130 135
 Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val
 140 145 150
 Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly
 155 160 165
 Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser
 170 175 180

Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser
185 190 195
Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro
200 205 210
Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp
215 220 225
Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly
230 235 240
Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu
245 250 255
Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
260 265 270
Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly
275 280 285
Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr
290 295 300
Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln
305 310 315
Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys
320 325 330
Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly
335 340 345
Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu
350 355 360
Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
365 370 375
Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln
380 385 390
Pro Glu Asn Asn Tyr Lys Thr Pro Pro Val Leu Asp Ser Asp
395 400 405
Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg
410 415 420
Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala
425 430 435
Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly
440 445 450
Lys
451

<210> 3
<211> 218
<212> PRT
<213> homo sapiens

<400> 3
Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro
1 5 10 15
Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
20 25 30
Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys
35 40 45
Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr
50 55 60
Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser
65 70 75
Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr
80 85 90
Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys
95 100 105
Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
110 115 120
Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser
125 130 135
Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val
140 145 150
Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
155 160 165
Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys
170 175 180
Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser
185 190 195
Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys
200 205 210
Ser Leu Ser Leu Ser Pro Gly Lys
215 218

<210> 4
<211> 218
<212> PRT
<213> homo sapiens

<400> 4
 Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro
 1 5 10 15
 Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
 20 25 30
 Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys
 35 40 45
 Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr
 50 55 60
 Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser
 65 70 75
 Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr
 80 85 90
 Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys
 95 100 105
 Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
 110 115 120
 Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val Ser
 125 130 135
 Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val
 140 145 150
 Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
 155 160 165
 Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys
 170 175 180
 Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser
 185 190 195
 Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys
 200 205 210
 Ser Leu Ser Leu Ser Pro Gly Lys
 215 218

<210> 5
 <211> 217
 <212> PRT
 <213> homo sapiens

<400> 5
 Pro Ala Pro Pro Val Ala Gly Pro Ser Val Phe Leu Phe Pro Pro
 1 5 10 15
 Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr
 20 25 30

Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Gln Phe
 35 40 45
 Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys
 50 55 60
 Pro Arg Glu Glu Gln Phe Asn Ser Thr Phe Arg Val Val Ser Val
 65 70 75
 Leu Thr Val Val His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys
 80 85 90
 Cys Lys Val Ser Asn Lys Gly Leu Pro Ala Pro Ile Glu Lys Thr
 95 100 105
 Ile Ser Lys Thr Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr
 110 115 120
 Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu
 125 130 135
 Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu
 140 145 150
 Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro
 155 160 165
 Pro Met Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
 170 175 180
 Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys
 185 190 195
 Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser
 200 205 210
 Leu Ser Leu Ser Pro Gly Lys
 215 217

<210> 6

<211> 218

<212> PRT

<213> homo sapiens

<400> 6
 Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro
 1 5 10 15
 Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
 20 25 30
 Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Gln
 35 40 45
 Phe Lys Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr
 50 55 60

Lys	Pro	Arg	Glu	Glu	Gln	Phe	Asn	Ser	Thr	Phe	Arg	Val	Val	Ser
65									70					75
Val	Leu	Thr	Val	Leu	His	Gln	Asp	Trp	Leu	Asn	Gly	Lys	Glu	Tyr
80									85					90
Lys	Cys	Lys	Val	Ser	Asn	Lys	Ala	Leu	Pro	Ala	Pro	Ile	Glu	Lys
95									100					105
Thr	Ile	Ser	Lys	Thr	Lys	Gly	Gln	Pro	Arg	Glu	Pro	Gln	Val	Tyr
									115					120
Thr	Leu	Pro	Pro	Ser	Arg	Glu	Glu	Met	Thr	Lys	Asn	Gln	Val	Ser
									125					135
Leu	Thr	Cys	Leu	Val	Lys	Gly	Phe	Tyr	Pro	Ser	Asp	Ile	Ala	Val
									140					150
Glu	Trp	Glu	Ser	Ser	Gly	Gln	Pro	Glu	Asn	Asn	Tyr	Asn	Thr	Thr
									155					165
Pro	Pro	Met	Leu	Asp	Ser	Asp	Gly	Ser	Phe	Phe	Leu	Tyr	Ser	Lys
									170					180
Leu	Thr	Val	Asp	Lys	Ser	Arg	Trp	Gln	Gln	Gly	Asn	Ile	Phe	Ser
									185					195
Cys	Ser	Val	Met	His	Glu	Ala	Leu	His	Asn	Arg	Phe	Thr	Gln	Lys
									200					210
Ser	Leu	Ser	Leu	Ser	Pro	Gly	Lys							
								215						218

<210> 7

<211> 218

<212> PRT

<213> homo sapiens

<400>	7													
Pro	Ala	Pro	Glu	Phe	Leu	Gly	Gly	Pro	Ser	Val	Phe	Leu	Phe	Pro
1								5					10	15
Pro	Lys	Pro	Lys	Asp	Thr	Leu	Met	Ile	Ser	Arg	Thr	Pro	Glu	Val
								20					25	30
Thr	Cys	Val	Val	Val	Asp	Val	Ser	Gln	Glu	Asp	Pro	Glu	Val	Gln
								35					40	45
Phe	Asn	Trp	Tyr	Val	Asp	Gly	Val	Glu	Val	His	Asn	Ala	Lys	Thr
										50				55
Lys	Pro	Arg	Glu	Glu	Gln	Phe	Asn	Ser	Thr	Tyr	Arg	Val	Val	Ser
									65					70
Val	Leu	Thr	Val	Leu	His	Gln	Asp	Trp	Leu	Asn	Gly	Lys	Glu	Tyr
								80					85	90

Lys Cys Lys Val Ser Asn Lys Gly Leu Pro Ser Ser Ile Glu Lys
 95 100 105
 Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
 110 115 120
 Thr Leu Pro Pro Ser Gln Glu Glu Met Thr Lys Asn Gln Val Ser
 125 130 135
 Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val
 140 145 150
 Glu Trp Glx Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
 155 160 165
 Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Arg
 170 175 180
 Leu Thr Val Asp Lys Ser Arg Trp Gln Glu Gly Asn Val Phe Ser
 185 190 195
 Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys
 200 205 210
 Ser Leu Ser Leu Ser Leu Gly Lys
 215 218

<210> 8
 <211> 215
 <212> PRT
 <213> Mus musculus

<400> 8
 Thr Val Pro Glu Val Ser Ser Val Phe Ile Phe Pro Pro Lys Pro
 1 5 10 15
 Lys Asp Val Leu Thr Ile Thr Leu Thr Pro Lys Val Thr Cys Val
 20 25 30
 Val Val Asp Ile Ser Lys Asp Asp Pro Glu Val Gln Phe Ser Trp
 35 40 45
 Phe Val Asp Asp Val Glu Val His Thr Ala Gln Thr Gln Pro Arg
 50 55 60
 Glu Glu Gln Phe Asn Ser Thr Phe Arg Ser Val Ser Glu Leu Pro
 65 70 75
 Ile Met His Gln Asp Cys Leu Asn Gly Lys Glu Phe Lys Cys Arg
 80 85 90
 Val Asn Ser Ala Ala Phe Pro Ala Pro Ile Glu Lys Thr Ile Ser
 95 100 105
 Lys Thr Lys Gly Arg Pro Lys Ala Pro Gln Val Tyr Thr Ile Pro
 110 115 120

Pro Pro Lys Glu Gln Met Ala Lys Asp Lys Val Ser Leu Thr Cys
 125 130 135
 Met Ile Thr Asp Phe Phe Pro Glu Asp Ile Thr Val Glu Trp Gln
 140 145 150
 Trp Asn Gly Gln Pro Ala Glu Asn Tyr Lys Asn Thr Gln Pro Ile
 155 160 165
 Met Asp Thr Asp Gly Ser Tyr Phe Val Tyr Ser Lys Leu Asn Val
 170 175 180
 Gln Lys Ser Asn Trp Glu Ala Gly Asn Thr Phe Thr Cys Ser Val
 185 190 195
 Leu His Glu Gly Leu His Asn His His Thr Glu Lys Ser Leu Ser
 200 205 210
 His Ser Pro Gly Lys
 215

<210> 9
 <211> 218
 <212> PRT
 <213> Mus musculus

<400> 9
 Pro Ala Pro Asn Leu Leu Gly Gly Pro Ser Val Phe Ile Phe Pro
 1 5 10 15
 Pro Lys Ile Lys Asp Val Leu Met Ile Ser Leu Ser Pro Ile Val
 20 25 30
 Thr Cys Val Val Val Asp Val Ser Glu Asp Asp Pro Asp Val Gln
 35 40 45
 Ile Ser Trp Phe Val Asn Asn Val Glu Val His Thr Ala Gln Thr
 50 55 60
 Gln Thr His Arg Glu Asp Tyr Asn Ser Thr Leu Arg Val Val Ser
 65 70 75
 Ala Leu Pro Ile Gln His Gln Asp Trp Met Ser Gly Lys Glu Phe
 80 85 90
 Lys Cys Lys Val Asn Asn Lys Asp Leu Pro Ala Pro Ile Glu Arg
 95 100 105
 Thr Ile Ser Lys Pro Lys Gly Ser Val Arg Ala Pro Gln Val Tyr
 110 115 120
 Val Leu Pro Pro Pro Glu Glu Met Thr Lys Lys Gln Val Thr
 125 130 135
 Leu Thr Cys Met Val Thr Asp Phe Met Pro Glu Asp Ile Tyr Val
 140 145 150

Glu Trp Thr Asn Asn Gly Lys Thr Glu Leu Asn Tyr Lys Asn Thr
155 160 165

Glu Pro Val Leu Asp Ser Asp Gly Ser Tyr Phe Met Tyr Ser Lys
170 175 180

Leu Arg Val Glu Lys Lys Asn Trp Val Glu Arg Asn Ser Tyr Ser
185 190 195

Cys Ser Val Val His Glu Gly Leu His Asn His His Thr Thr Lys
200 205 210

Ser Phe Ser Arg Thr Pro Gly Lys
215 218

<210> 10

<211> 218

<212> PRT

<213> Mus musculus

<400> 10
Pro Ala Pro Asn Leu Glu Gly Pro Ser Val Phe Ile Phe Pro
1 5 10 15

Pro Asn Ile Lys Asp Val Leu Met Ile Ser Leu Thr Pro Lys Val
20 25 30

Thr Cys Val Val Asp Val Ser Glu Asp Asp Pro Asp Val Gln
35 40 45

Ile Ser Trp Phe Val Asn Asn Val Glu Val His Thr Ala Gln Thr
50 55 60

Gln Thr His Arg Glu Asp Tyr Asn Ser Thr Ile Arg Val Val Ser
65 70 75

His Leu Pro Ile Gln His Gln Asp Trp Met Ser Gly Lys Glu Phe
80 85 90

Lys Cys Lys Val Asn Asn Lys Asp Leu Pro Ser Pro Ile Glu Arg
95 100 105

Thr Ile Ser Lys Pro Lys Gly Leu Val Arg Ala Pro Gln Val Tyr
110 115 120

Thr Leu Pro Pro Pro Ala Glu Gln Leu Ser Arg Lys Asp Val Ser
125 130 135

Leu Thr Cys Leu Val Val Gly Phe Asn Pro Gly Asp Ile Ser Val
140 145 150

Glu Trp Thr Ser Asn Gly His Thr Glu Glu Asn Tyr Lys Asp Thr
155 160 165

Ala Pro Val Leu Asp Ser Asp Gly Ser Tyr Phe Ile Tyr Ser Lys
170 175 180

Leu Asn Met Lys Thr Ser Lys Trp Glu Lys Thr Asp Ser Phe Ser
 185 190 195
 Cys Asn Val Arg His Glu Gly Leu Lys Asn Tyr Tyr Leu Lys Lys
 200 205 210
 Thr Ile Ser Arg Ser Pro Gly Lys
 215 218

<210> 11
 <211> 218
 <212> PRT
 <213> Mus musculus

<400> 11
 Pro Pro Gly Asn Ile Leu Gly Gly Pro Ser Val Phe Ile Phe Pro
 1 5 10 15
 Pro Lys Pro Lys Asp Ala Leu Met Ile Ser Leu Thr Pro Lys Val
 20 25 30
 Thr Cys Val Val Val Asp Val Ser Glu Asp Asp Pro Asp Val His
 35 40 45
 Val Ser Trp Phe Val Asp Asn Lys Glu Val His Thr Ala Trp Thr
 50 55 60
 Gln Pro Arg Glu Ala Gln Tyr Asn Ser Thr Phe Arg Val Val Ser
 65 70 75
 Ala Leu Pro Ile Gln His Gln Asp Trp Met Arg Gly Lys Glu Phe
 80 85 90
 Lys Cys Lys Val Asn Asn Lys Ala Leu Pro Ala Pro Ile Glu Arg
 95 100 105
 Thr Ile Ser Lys Pro Lys Gly Arg Ala Gln Thr Pro Gln Val Tyr
 110 115 120
 Thr Ile Pro Pro Pro Arg Glu Gln Met Ser Lys Lys Val Ser
 125 130 135
 Leu Thr Cys Leu Val Thr Asn Phe Phe Ser Glu Ala Ile Ser Val
 140 145 150
 Glu Trp Glu Arg Asn Gly Glu Leu Glu Gln Asp Tyr Lys Asn Thr
 155 160 165
 Pro Pro Ile Leu Asp Ser Asp Gly Thr Tyr Phe Leu Tyr Ser Lys
 170 175 180
 Leu Thr Val Asp Thr Asp Ser Trp Leu Gln Gly Glu Ile Phe Thr
 185 190 195
 Cys Ser Val Val His Glu Ala Leu His Asn His His Thr Gln Lys
 200 205 210

Asn Leu Ser Arg Ser Pro Gly Lys
215 218

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